



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

March 8, 2019

Eliot Harrison
Lewis & Harrison, LLC
2461 South Clark Street, Suite 710
Arlington, VA 22202

Subject: PRIA Label Amendment – Adding Fogging Claim
Product Name: Per OX
EPA Registration Number: 833-4
Application Date: 08/31/2018
Decision Number: 543913

Dear Mr Harrison:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

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Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Terria Northern by phone at 703-347-0265, or via email at northern.terria@epa.gov.

Sincerely,



Zeno Bain, Product Manager 33
Regulatory Management Branch I
Antimicrobials Division (7510P)
Office of Pesticide Programs

Enclosure



PER-OX

For Industrial Use Only

Do not use in hospital or healthcare facilities

For Institutional / Industrial sanitizing of previously cleaned non-porous food contact surfaces in:

- Dairies, Wineries, Breweries and Beverage Plants
- Meat and Poultry Processing/Packaging Plants
- Milk and Dairy Products Processing/Packing Plants
- Seafood and Produce Processing/Packing Plants
- Food Processing/Packing Plants
- Egg Processing/Packing Equipment Surfaces
- Eating Establishments.

For Institutional / Industrial sanitizing of previously cleaned hard, non-porous food contact surfaces such as:

- Eating, Drinking, and Food Preparation Utensils
- Countertops and Food Preparation Surfaces
- Tableware
- Plastic, Glass and Metal Bottles (rinse)

For use as a sanitizer on food contact surfaces in contact with products labeled as organic. For use as a coarse spray for surfaces to be sanitized or disinfected.

PER-OX is for sanitizing hard, inanimate, non-food contact surfaces (general environmental surfaces).

PER-OX is for use in the disinfection of hard, non-porous surfaces in general commercial environments such as:

- Food processing plants
- Pharmaceutical and chemical facilities

For use as an antimicrobial container rinse to control beverage spoilage microorganisms.

Active Ingredients: Peroxyacetic Acid	5.25%
Hydrogen Peroxide.....	22.00%
Inert Ingredients:	72.75%
TOTAL	100.00%

KEEP OUT OF REACH OF CHILDREN

DANGER

See Left Panel for Additional Precautionary Statements

First Aid

If in Eyes

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

If on Skin or Clothing

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice

If Inhaled

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

If Swallowed

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

This product is not to be used as a terminal sterilant/high-level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

EPA Registration No. 833-4

EPA Est. No. 833-PA-1

Net Contents:

Lot Number:

Precautionary Statements

Hazards to Humans and Domestic Animals

DANGER Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed. May be fatal if absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear protective eyewear (goggles, face shield or safety glasses), chemical resistant apron or coveralls and chemical resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse.

Physical or Chemical Hazards- Strong oxidizing agent. Mix only with water. Not combustible but at temperatures exceeding 156°F, decomposition occurs releasing oxygen. The oxygen released could initiate or promote combustion of other materials.

Environmental Hazards -This pesticide is toxic to birds, mammals, fish and aquatic life. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Storage and Disposal

Do Not Contaminate Water, Food, or Feed by Storage and Disposal.

Pesticide Storage

NEVER RETURN PER-OX TO THE ORIGINAL CONTAINER AFTER IT HAS BEEN REMOVED. Avoid all contaminants, especially dirt, caustic, reducing agents, and metals. Contamination and impurities will reduce shelf life and can induce decomposition. In case of a decomposition, isolate container, douse container with cool water and dilute with large volumes of water.

Avoid damage to containers. Keep container closed at all times when not in use. Keep container out of direct sunlight. To maintain product quality, store at temperatures below 86°F. Do not store on wooden pallets.

Procedure for Leak or Spill

Stop leaks if this can be done without risk. Shut off ignition sources; no flames, smoking, flares, or spark-producing tools. Keep combustible and organic materials away. Flush spilled material with large quantities of water. Undiluted material should not enter confined spaces.

Disposal Pesticide Disposal

If material has been spilled, an acceptable method of disposal is to dilute with at least 20 volumes of water followed by discharge into suitable treatment system in accordance with all local, state and Federal environmental laws, rules, regulations, standards, and other requirements. Because acceptable methods of disposal may vary by location, regulatory agencies should be contacted prior to disposal.

Product to be discarded should be disposed of as hazardous waste after contacting the appropriate local, state, or Federal agency to determine proper procedures.

Container Disposal

Nonrefillable containers greater than or equal to five gallons. Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty rinsate into application equipment or mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Empty drums are not returnable unless special arrangements have been made. Dispose of drums in accordance with local, state, and Federal regulations.

Directions For Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use in circulation cleaning and institutional/industrial sanitizing of previously cleaned hard, non-porous food-contact surfaces and equipment such as food preparation surfaces, pipelines, tanks, vats, fillers, evaporators, pasteurizers, and aseptic equipment in:

- Dairies, Wineries, Breweries and Beverage Plants
- Meat and Poultry Processing / Packaging Plants
- Milk and Dairy Products Processing / Packing Plants
- Seafood and Produce Processing / Packing Plants
- Food Processing / Packing Plants
- Egg Processing / Packing Equipment Surfaces
- Eating Establishments
- Final Sanitizing Bottle Rinse

Sanitizing Hard, Non-porous Food Contact Surfaces

An effective sanitizer against *Staphylococcus aureus*, *Escherichia coli*, and *Salmonella enterica*. Clean equipment immediately after use:

1. Remove gross particulate matter with a warm water flush.
2. Wash equipment with detergent or cleaning solution.
3. Rinse equipment with potable water.
4. Prepare product solution by adding 1.0 to 5.6 fluid ounces to 5 gallons sterile deionized water. This provides 90 to 500 ppm peroxyacetic acid
5. Fill closed systems with diluted sanitizer solution and allow a contact time of one (1) minute.
6. If sanitizing against *Listeria monocytogenes*, use 1.25 to 5.6 fluid ounces of this product to 5 gallons of sterile deionized water. This will provide 112 to 500 ppm of peroxyacetic acid.
7. For open or not completely closed systems, use a coarse spray, mop/wipe or flood technique to apply the solution to the surface and allow a contact time of one (1) minute.
8. Allow surfaces to drain thoroughly before resuming operation.

General Environmental (Non-Food Contact) Surfaces Sanitation

PER-OX is an effective sanitizer on inanimate, hard, non-food contact surfaces against *Staphylococcus aureus* and *Klebsiella pneumonia*. Sanitization of surfaces such as floors, walls, tables, chairs, benches, drains, etc. can be accomplished using the following procedure:

1. Wash surface/item with a detergent or cleaning solution.
2. Rinse surface/item with potable water.
3. Prepare sanitizer solution by adding 1 to 17 fluid ounces of PER-OX to 15 gallons of sterile deionized water to prepare a solution containing 30 to 500 ppm peroxyacetic acid.
4. Immerse items in diluted sanitizer solution or apply diluted sanitizer solution to surface/item using a mop, wipe, coarse spray, or flood technique. Allow contact for at least 5 minutes.
5. Allow items and/or surfaces to drain adequately or air dry.

Hard Surface Disinfection

PER-OX is an effective broad spectrum disinfectant against Gram positive and Gram negative bacteria including *Staphylococcus aureus* and *Salmonella enterica* and may be used to clean, disinfect, and deodorize hard, non-porous inanimate surfaces such as:

- Food processing equipment and facilities

- Floors, walls, and other non-porous surfaces such as tables, chairs, counter tops, garbage cans/bins, bathroom fixtures, sinks, shelves, racks, carts, refrigerators, coolers, glazed tile, linoleum, vinyl, glazed porcelain, plastic (such as polypropylene and polyethylene), stainless steel, or glass.
- Chemical and pharmaceutical processing facilities and equipment

To disinfect surfaces that may be contaminated with Gram positive or Gram negative bacteria including *Staphylococcus aureus* and *Salmonella enterica* use the following procedure:

1. Prepare a PER-OX disinfecting solution by adding 3.2 to 30 oz. of PER-OX to 5 gallons of sterile deionized water. This will provide 288 to 2700 ppm per- oxyacetic acid.
2. Remove gross filth from surfaces to be disinfected by cleaning with a suitable detergent or cleaner. Rinse surface with potable water.
3. Apply PER-OX disinfecting solution by wiping, mopping, or as a coarse spray. Allow at least 10 minutes contact time, then air dry.
4. Applications on food contact surfaces require a sterile or potable water rinse following disinfection.

Eating Establishment Sanitizing

An effective sanitizer against *Staphylococcus aureus*, *Escherichia coli*, and *Salmonella enterica*.

1. Scrape/prewash plates, utensils, cups, glasses, etc. whenever possible.
2. Wash all items with a detergent.
3. Rinse thoroughly with potable water.
4. Prepare product solution by adding 1.0 to 5.6 fluid ounces to 5 gallons of sterile deionized water. This provides 90 to 500 ppm peroxyacetic acid.
5. Immerse all items for at least 2 minutes or for a contact time as specified by the local governing sanitation code.
6. If sanitizing against *Listeria monocytogenes*, use 1.25 to 5.6 fluid ounces of this product to 5 gallons of sterile deionized water. This will provide 112 to 500 ppm of peroxyacetic acid.
7. Place all sanitized items on a rack or drainboard to drain adequately. Air dry if items will not be reused immediately.

Sanitizing Tableware

For sanitizing tableware in low to ambient temperature warewashing machines, inject the diluted product solution (1.0 to 5.6 fluid ounces of the product to 5 gallons of sterile deionized water) into the final rinse water. Solution must contact tableware for a minimum of 60 seconds. Allow treated surfaces to air dry.

Final Sanitizing Bottle Rinse

May be used as a final sanitizing rinse for plastic, glass or metal returnable and non-returnable bottles / cans.

1. Wash bottles with detergent or cleaning solution and rinse with potable water.
2. Rinse bottles with a solution prepared by mixing 1.0 to 5.6 fluid ounces of product to 5 gallons of sterile deionized water.
3. Solution must contact bottles/cans for a minimum of 60 seconds.
4. Allow to drain adequately.

Sanitization of Hatching Eggs

1. Prepare a dilute solution prepared by mixing 1.0 to 2.25 fluid ounces of product to 5 gallons of sterile deionized water.
2. Apply dilute solution as eggs are gathered or prior to setting, as a coarse spray or flood so as to lightly wet all egg shell surfaces.
3. Solution must contact eggs for a minimum of 60 seconds.
4. Allow to drain dry.

Sanitization of Conveyors, Peelers, Slicers and Saws for Meat, Poultry, Seafood, Fruits and Vegetables

An effective sanitizer against *Staphylococcus aureus*, *Escherichia coli*, and *Salmonella enterica*.

For use in the static or continuous washing, rinsing and sanitizing of conveyor equipment, peelers, collators, slicers, saws, etc.

1. Remove all products from equipment if during treatment the sanitizer will directly contact the items.
2. Prepare sanitizer solution by adding 1.0 to 5.6 fluid ounces to 5 gallons of sterile deionized water. This will provide 90 –500 ppm peroxyacetic acid
3. Apply sanitizer solution to the return portion of the conveyor or to the equipment by using a coarse spray or other means of wetting the surfaces. Treat for at least 1 minute. Control the volume of solution so as to permit maximum drainage and to prevent puddles. The conveyor may still be damp when food contact occurs.
4. If sanitizing against *Listeria monocytogenes*, use 1.25 to 5.6 fluid ounces of this product to 5 gallons of sterile deionized water. This will provide 112 to 500 ppm of peroxyacetic acid.
5. Allow equipment to drain adequately before reusing, a dry surface is not required.

Antimicrobial Rinse of Pre-Cleaned or New Returnable or Non-Returnable Containers

To reduce the number of nonpathogenic beverage spoilage organisms such as *Byssoschlamys fulva*, *Pediococcus damnosus*, *Lactobacillus buchneri*, and *Saccharomyces cerevisiae*.

1. Prepare solution by adding 7.0 to 30 fluid oz. to 5 gallons of sterile deionized water. This will provide 632 to 2707 ppm of peroxyacetic acid.
2. Apply solution, allowing a minimum contact time of 5 seconds.
3. Allow containers to drain thoroughly, and then rinse with sterile or potable water.

For Treatment of Raw Fruit and Vegetable Surfaces and Processing Water in Washing Facilities and Food Processing Establishments

Use Per-Ox as a dip or spray to control the growth of non-public health microorganisms such as *Xanthomonas campestris (axonopodis) pathovars* citrumelo (citrus canker surrogate), blue mold (*Penicillium* species), green mold (*Penicillium* species) and stem-end rot (*Geotrichum*) that may cause decay and/or spoilage on raw, post-harvest fruits and vegetables during the washing process. This product can be applied during physical cleaning processes, including at the roller spreader, washer manifold, dip tank, on the brushes or elsewhere in the washing process prior to, simultaneously with, or after detergent wash.

1. Prepare treatment solution by adding 0.5 - 1.0 fluid ounce per 5 gallons of sterile deionized water. This will provide 45-90 ppm of peroxyacetic acid and 189-378 ppm hydrogen peroxide.
2. Remove gross filth.
3. Apply the diluted sanitizer solution using a coarse spray directed at the fruits or vegetables, or by soaking the fruits and vegetables in the solution. Allow a contact time of at least 45 seconds.
4. The treated produce can be drain dried without a potable water rinse.
5. Do not reuse solution after treatment.
6. Prepare a new solution daily to ensure effectiveness.

Use Per-Ox on the following raw and post-harvest fruits and vegetables

- Root and tube vegetables such as carrots and potatoes
- Bulb vegetables such as onions, garlic and shallots
- Leafy vegetables such as broccoli, cabbage and cauliflower
- Legumes such as beans, peas and lentils
- Fruiting vegetables such as peppers, tomato and eggplant
- Cucurbits such as cucumbers, melons, squash and pumpkins
- Citrus fruits such as oranges, lemons, limes and grapefruit
- Pome fruits, apples and pears
- Stone fruits such as cherries, peaches, nectarines and plums
- Small fruits and berries: blackberries, blueberries red and black raspberries
- Tree nuts such as almond, brazil, filbert, cashew and pecan
- Cereal grains such as corn, barley, oats, rice, and wheat
- Herbs and spices such as basil, chives, coriander and dill

- Miscellaneous fruits and vegetables such as asparagus, avocado, artichoke, banana, cranberry, fig, grapes, kiwifruit, mango, mushrooms, okra, papaya, peanut, pineapple, strawberry and water chestnut.

Sanitizing Hard, Non-Porous, Non-Edible Outside Surfaces of Airtight, Sealed Packages Containing Food or Non-Food Products PER-OX may be used as a final sanitizing rinse for hard, non-porous non-edible outside surfaces of airtight, sealed packages containing food or non-food products at a dilution of 1.0 to 5.6 fluid ounces per 5 gallons of sterile deionized water. This provides 90-500 ppm peroxyacetic acid. The treated hard, non-porous non-edible packaging, such as food wraps and meat casings must be removed and discarded before packaged food products are further processed or consumed. All surfaces must be exposed to the sanitizing solution for a period of not less than 1 minute. Drain thoroughly. No rinse necessary. This is not to be used on porous surfaces.

FOGGING

For Use in Dairies, Beverage and Food-Processing Plants (including meat and poultry processing plants)

Use this product to control the growth of non-public health microorganisms that can cause decay and/or spoilage and as a sanitizer against *Staphylococcus aureus* and *Escherichia coli*.

Instructions for Fogging

- Prior to fogging, remove food products and packaging material from the area to be treated.
- Use Per-Ox only with the Lafferty 633 fogger (refer to fogger instruction manual).
- Only use in pre-cleaned enclosures and on pre-cleaned equipment.
- For use only on hard, non-porous surfaces.
- For use in sealed rooms, with a maximum room volume of 104 m³ or 3663ft³.
- Prepare a use solution of 2.0 fl. oz. of Per-Ox per 5 gallons of sterile deionized water.
- Treat at a rate of 3.2-quarts of the use-solution (2 fl. oz. of Per-Ox per 5 gallons of sterile deionized water) per 1000 ft³ of room volume, at 125-130 psi for at least 15 minutes and then begin room aeration for at least 20 minutes. The application time will vary depending on room size.
- The minimum effective surface concentration is 100 ppm of peroxyacetic acid (PAA). Use chemical indicator strips specific for PAA to confirm that the minimum effective concentration of 100 ppm PAA has been satisfied. Place one strip at four different locations in the room to be fogged. If the minimum effective concentration of 100 ppm PAA was not reached, repeat fogging, as described above, until this level is reached.
- Treatment area must remain unoccupied until a Drager, PortaSens or other monitoring device registers hydrogen peroxide levels at <0.2 ppm. If the treatment area must be entered when the hydrogen peroxide level is >0.2 ppm, then individuals entering the area must wear a self-contained respirator approved by NIOSH/MHSA, goggles, long sleeves and long pants.

Foam Cleaning of Food and Non-Food Contact Surfaces: As an adjunct to cleaning procedures this product may be added to Perafoam (AFCO 4390) and foamed on environmental or equipment surfaces using conventional foam-generating equipment. The resultant foam blend can be used on equipment, floors, walls, ceilings, drains, etc. and must be left on surface for a minimum of 1 minute or longer. On food contact surfaces do not exceed 6.1 oz. of this product per 6 gallons of water. Directions for mixing: Manually or mechanically blend 1-6.1 fl. oz. of this product and 6-12 fl. oz. of Perafoam (AFCO 4390) (foam additive) per 6 gallons of water. The dilution water must not exceed 150° F.

Manufactured by: Alex C. Fergusson, LLC.
5121 Coffey Avenue
Chambersburg, PA 17201
Tel. 800-345-1329

24 Hr Emergency Chemtrec No. (CCN837): 800-424-9300

